

REMARKS

The Office Action mailed August 10, 2005 has been received and reviewed. Claims 1-21 are pending. Claims 1-13 and 15-20 are rejected. Claims 14 and 21 are indicated as being allowable if rewritten. Claims 1 and 11 are amended. The Applicants submit that the claims are in condition for allowance for the reasons stated below.

Rejection Of Claims 1-4, 6, 7, 10-13, 15, 16 And 18-20 Under 35 U.S.C. § 102(b)

Claims 1-4, 6, 7, 10-13, 15, 16 and 18-20 are rejected under 35 U.S.C. § 102(b) as being anticipated by Lee (USP 5,628,616). The rejection is overcome by clarifying amendment of claims 1 and 11. As amended claims 1 and 11 require that the at least one vane of the impeller has a centerline extending along the radial length of the vane which is perpendicular to the central axis, or axis of rotation, of the impeller. Support for the amendment is found at paragraph 0042 of the specification and in FIGS. 2, 8 and 9. Lee, by contrast, discloses impeller embodiments (figures 4 and 6) where the vanes (38) have a centerline that is positioned at an acute angle to the central axis or axis of rotation of the impeller. Therefore, claims 1 and 11, as well as the claims that depend therefrom and include the limitations thereof, are not anticipated by Lee.

Rejection Of Claims 1-5, 7, 9, 11, 13, 15 And 17-20 Under 35 U.S.C. § 102(e)

Claims 1-5, 7, 9, 11, 13, 15 and 17-20 are rejected under 35 U.S.C. § 102(e) as being anticipated by Higashimori, et al. (USP 6,877,955) ("Higashimori"). The rejection is overcome by clarifying amendment of claims 1 and 11. Higashimori discloses a turbine having a hub (1) with a rotational axis L and a plurality of rotor blades (3) or vanes. The rotor blades of Higashimori do not extend radially from the central or rotational axis L of the impeller to a peripheral edge of the impeller as required by claims 1 and 11 and fail to define a centerline as claimed. By contrast, the rotor blades of Higashimori are substantially parallel to the axis of rotation L and curve outwardly

away from the central axis L toward the outer end point (6) of the hub (1). Therefore, claims 1 and 11, as well as the claims that depend therefrom and include the limitations thereof, are not anticipated by Higashimori. Further, while Higashimori discloses a structure identified as a shroud (20), the rotor blades (3) are not connected to the shroud as claimed since in the impeller disclosed by Higashimori is described and illustrated as having a space between the outer curved side edge (211) of the rotor blade and the inner curved surface of the shroud. (See, col. 4, lines 20-25.) Again, the claims distinguish over and are not anticipated by Higashimori.

Rejection Of Claims 1-4, 6-8, 10-13, 15 And 17-20 Under 35 U.S.C. § 102(b)

Claims 1-4, 6-8, 10-13, 15 and 17-20 are rejected under 35 U.S.C. § 102(b) as being anticipated by Mayne (USP 3,221,398). The rejection is traversed as to claims 1-10 and is overcome by clarifying amendment of claim 11. Claim 1 requires at least one vane that extends from a central axis of the impeller to an outer peripheral edge of the impeller. Mayne discloses blades (10) on a blower wheel that do not extend from a central axis, but rather extend from the peripheral edge of the blower wheel to a point intermediate the central axis and peripheral edge of the blower wheel. Therefore, claims 1-10 distinguish over and are not anticipated by Mayne.

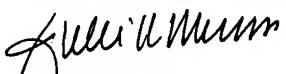
As amended, claim 11 requires that the at least one vane be secured to the shroud along the radial extension of the vane along the shroud. Mayne discloses that the vanes or blades (10) are "struck" or cut from a single sheet of metal material producing two long free edges and two tips (11, 60) at the end of those free edges, as best seen in figures 6 and 7. Mayne further discloses that the margin strips (12, 14) of the sheet of metal are attached, respectively to a frustoconical member (30) and a backing plate (50). The backing plate (50) is formed with a plurality of slots (58) through which the tips 60 of the blades 10 are positioned and secured by spot welding to lock each blade tip to the backing plate (50). (See, column 2, line 69 through column 3, line 4.) Each blade of the Mayne blower wheel is, therefore, only secured to the

backing plate (50) at the tip 60 and at the peripheral margin (12, 14), but not along the length of the blade as required by the claims. Therefore, claims 11-13, 15 and 17-20 distinguish over and are not anticipated by Mayne.

CONCLUSION

In view of the amendments and arguments made, the Applicants submit that claims 1-21 present patentable subject matter. Reconsideration and allowance are respectfully requested.

Respectfully submitted,


Julie K. Morrise
Registration No. 33,263
Attorney for Applicant
MORRISS O'BRYANT COMPAGNI, P.C.
136 South Main Street, Suite 700
Salt Lake City, Utah 84101
Telephone: (801) 478-0071
Facsimile: (801) 478-0076

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